

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Ulrich Bonne

Examiner: Timothy J. Dole

Serial No. 10/750,483

Group Art Unit: 2858

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Confirmation No.: 9843

For: GAS IONIZATION SENSOR

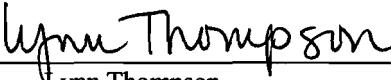
Docket No.: H0006074-1100.1233101

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

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 December 28, 2006

Lynn Thompson

Date

Applicants submit that the Examiner's rejections contain at least the following clear errors and/or omissions of one or more essential elements needed for a *prima facie* rejection.

Claims 6 and 8 remain rejected as being anticipated by Vojak et al. In response to Applicants' previous amendment and arguments, the Examiner maintains that Vojak et al. does disclose first and second electrodes substantially contained within a channel. Applicants respectfully disagree and submit that the Examiner's interpretation of the phrase "substantially contained" is contrary to that understood by one of ordinary skill in the art and is also contrary to that which the skilled artisan would arrive at having read the instant specification.

The Examiner asserts that the claims are broadly interpreted within a reasonable scope. As stated in the previous response, MPEP 2111.01 states, "Claim terms are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art" and "It is the use of the words in the context of the written description and customarily by those skilled in the relevant art that accurately reflects both the "ordinary" and the "customary" meaning of the

terms in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ2d 1001, 1009 (Fed. Cir. 2003). (Emphasis added). Applicants submit that the Examiner's interpretation of "substantially contained within" is not consistent with the use of the words in the context of the written description and the use of the words by those skilled in the art. Applicants submit that the phrase "substantially contained within" has a particular meaning to those of skill in the art, and that the Examiner appears to be separately defining "substantial" and "contained within" in order to make the teachings of Vojak et al. read on the claims.

In the Advisory Action mailed December 18, 2006, the Examiner again asserts that because parts of the electrodes of Vojak et al. that cause the discharge are "substantial" and these parts of the electrode are contained within the channel, Vojak et al. meet the claimed element of "electrodes are substantially contained within the channel" as recited in claim 6.

The Examiner also asserts that if the electrodes of Vojak et al were not contained within the channel, the microdischarge device would not provide any discharge, and the device would not work. The Examiner then asserts that because the device of Vojak et al. will not function properly without the portions of the first and second electrodes being contained within the channel, the portions of the electrodes in the channel are considered to be substantial, therefore the electrodes of Vojak et al. are considered to be "substantially contained" within the channel, as claimed.

Applicants respectfully disagree with the Examiner's interpretation of "substantially contained within" the channel. As the Examiner acknowledges, Vojak et al. teach portions of electrodes 14 in channel/cavity 16 (see FIG. 1A). Applicants submit that one of ordinary skill in the art would not interpret "electrodes are substantially contained within the channel" as meaning that portions of the electrodes are required to be in the channel, as appears to be the Examiner's interpretation. The dictionary definition of "substantial" as it is used in the context of the claims is "being largely but not wholly that which is specified"; see the printout from Merriam-Webster online dictionary provided in the response filed November 27, 2006. Thus, the electrodes being "substantially contained within" the channel would be interpreted by one of ordinary skill in the art as the electrodes being largely contained within the channel. Applicants submit that one of ordinary skill in the art would not interpret the small portion of the electrodes 14 of Vojak et al.

in the cavity 16 as having the electrodes substantially contained within the cavity. Vojak et al. specifically teach:

horizontal electrode portions 14b that extend to contact the cavity 16. The horizontal electrode portions 14b preferably surround an entire circumference of the cavity 16 (if it is a circular cavity), i.e., the cavity 16 penetrates the electrode portions 14b in the same manner as it penetrates the layers 12<sub>1</sub>-12<sub>N</sub>.

(Emphasis added; see paragraph [0014]. In view of Vojak et al.'s teaching that electrode portions 14b contact the cavity and preferably surround the cavity, Applicants submit that one of ordinary skill in the art would not interpret Vojak et al. as teaching electrodes substantially contained within a channel, as is recited in independent claim 6. Whether or not the small portion of the electrodes of Vojak et al. that are in the cavity would be considered to be "substantial" in relation to the function of the electrodes does not alter the fact that Vojak et al. appear to teach the majority of the electrodes located outside the channel, as shown in Figure 1A. Applicants submit that the function of the electrode portions is not relevant to the claimed element of electrodes being substantially contained within the channel, which is a limitation on the position or location of the electrodes, not their function.

Vojak et al. do not appear to teach each and every element of independent claim 6 or claim 8, which is dependent therefrom. The anticipation rejection thus appears to be in error. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 9, 10, and 15 are rejected as being unpatentable over Vojak et al. in view of Wentworth et al. Applicants presented arguments against this rejection in the prior responses filed July 17, 2006 and November 27, 2006. The Examiner addressed these arguments for the first time in the Advisory Action. Applicants submit that the Examiner's lack of response in the Office Action of September 28, 2006, and the making of that action final appear to be in error.

In response to Applicants' arguments that there is no motivation to combine Vojak and Wentworth, the Examiner merely re-stated, in the Advisory Action, the obviousness statement presented in the final Office Action. The Examiner's repeated basis for obviousness is that it would have been obvious to one skilled in the art to incorporate the spectrometer of Wentworth et al. into the sensor of Vojak et al. to more accurately detect the discharge by making it possible

to analyze the system both during and after the spark. The only teaching of a spark, however, appears to be in Wentworth et al. Wentworth et al. appears to teach advantages of using a spectrometer for optical inspection of the gap during the spark. This does not, however, appear to provide any motivation for one of ordinary skill in the art to incorporate the spectrometer of Wentworth et al. into the device of Vojak et al. because Vojak et al. do not appear to teach any spark being generated. Applicants submit that there is no motivation to combine Vojak et al. and Wentworth et al., and that even if one were to make such a combination, one would not arrive at the sensor as recited in the claims.

Because the Examiner has not addressed the above arguments, which were provided in the responses filed July 17, 2006, and November 27, 2006, Applicants are faced with the challenge of drafting an Appeal Brief without any detailed response from the Examiner, other than a repetition of the obviousness statement without further explanation or support for the asserted obviousness statement. Applicants submit that this appears to be in error.

Claims 11 and 12 are rejected as being unpatentable over Vojak et al. in view of Wentworth et al. as applied to claim 9, and further in view of Wiegand, Jr. (US 3,657,600). Claims 13 and 14 are rejected as being unpatentable over Vojak et al., Wentworth et al., Wiegand, Jr., and Pompei et al.

For at least the reasons set forth above, Vojak et al. do not appear to teach the basic elements of independent claim 6, from which claims 11-14 depend. None of Wentworth et al., Wiegand, Jr., or Pompei et al. appear to provide what Vojak et al. lacks. Thus, any combination of the references also fails to teach or suggest each and every element of the claims. Further, claims 11-14 recite additional elements not found or suggested by the references.

Reconsideration and withdrawal of the rejections are respectfully requested.

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Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims are now in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-677-9050.

Respectfully submitted,

Date: 12-28-06



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